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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/680,150 | 10/08/2003 | Roger Lin | VIAP0074USA | 5067 |
| 27765 | 7590 | 06/29/2005 | EXAMINER | |
| NORTH AMERICA INTERNATIONAL PATENT OFFICE (NAIPC) | | | LUU, AN T | |
| P.O. BOX 506 | | | ART UNIT | |
| MERRIFIELD, VA 22116 | | | PAPER NUMBER | |
| | | | 2816 | |

DATE MAILED: 06/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/680,150 | LIN, ROGER | |
| | Examiner | Art Unit | |
| | An T. Luu | 2816 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment filed on 4-13-05 has been received and entered in the case. The rejections set forth in the previous Office Action are maintained as indicated below.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the limitation “*a plurality of periods in the output of each reference clock to generate a plurality of output clocks*”, lines 6-7, is unclear since it is not known if “*a plurality of output clocks*” is derived from “*periods of a single reference clock*” or “*each single reference clock*” provides “*a corresponding output clock*”. Further, the limitation “*each period of the second frequency being equal to the plurality of periods utilized in the output of one of the reference clocks*” does not provide a clear meaningful sense since there is no means to quantify “*a period*” to “*the plurality of periods*”. Examiner believes Applicant intended to recite “*each period of the second frequency being equal to the sum of the plurality of periods utilized in the output... clocks*”. Lastly, the limitation “*a plurality of reference...from other reference clocks*”, lines 4-5, has nothing to do with the rest of the recitation of claim. In other words, there is no structural and/or functional relationship between this limitation and other limitation of the claim.

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In claim 5, the limitation “*the first phase difference*”, line 2, does not have a clear antecedent basis. It is noted that “*a first phase*” limitation of claim 1 refers to a signal derived from reference clocks wherein “*the first phase difference*” of claim 5 refers to reference clock.

In claim 10, the limitation “the two corresponding output clocks”, line 8, lacks antecedent basis.

In claim 17, the limitation “generating a first reference clock having a frequency... substantially equal to an integer multiple of a reference period of the first reference clock”, lines 4-7, does not make a clear sense since it is impossible to have a single clock signal having a frequency higher than its own frequency.

Claims 18-19 are rejected for containing a negative limitation. A negative limitation renders the claim indefinite because it is an attempt to claim the invention by excluding what the inventors did not invent rather than distinctly and particularly pointing out what they did invent. In re Schecter, 98 USPQ 144 (CCPA 1953).

The rest of claims are rejected for being dependent on the rejected claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 10 and 17, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by the Scott et al reference (U.S. Patent 6,369,661).

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Scott et al discloses in figures 6 and 7 an apparatus for generating two output clocks (out1+ and out1-) of the same frequency with a predetermined phase difference between each other comprising a clock generator 608 for generating two reference clocks (out1+ and out1-) having the same frequency and being higher than the input clock 609 of the clock generator, the two reference clocks having a predetermined reference phase difference between each other (i.e., differential); and a phase interpolator 610 for generating two corresponding output clocks (output of 612) as required by claim 10.

Claim 10 and 17 are rejected for reciting method/steps derived from the apparatus of claim 10 that is rejected as noted above.

Given the great arrangement of confusion and uncertainty as to the proper interpretation of the limitations of claims, it would not be proper to reject claims 2-9, 11-16 and 18-22 on the basis of prior art given at this point of prosecution. MPEP 2173.06 states:

“...where there is a great deal of confusion and uncertainty as to the proper interpretation of the limitations of a claim, it would not be proper to reject such a claim on the basis of prior art. As stated in *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962), a rejection under 35 USC 103 should not be based on considerable speculation about the meaning of terms employed in a claim or assumptions that must be made as to the scope of the claims.”

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

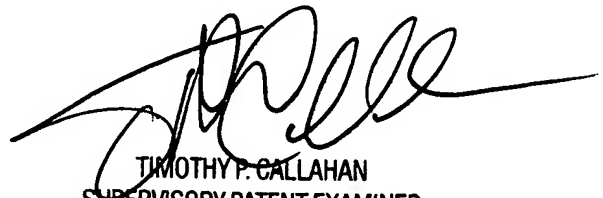
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

An T. Luu

6-16-05 


TIMOTHY P. CALLAHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800